Texas Department of Health

MONITOR

Bureau of Epidemiology

TEXAS BIRTH DEFECTS MONITORING DIVISION

VOLUME 7, NUMBER 1, JUNE 2001

FROM THE DIRECTOR

Recent High Rates of Anencephaly in Laredo

Surveillance staff from the Texas Birth Defects Monitoring Division (TBDMD) recently detected seven cases of anencephaly among births in late 2000 and early 2001 to mothers residing in Laredo, prompting a formal investigation of anencephaly rates in this area.

Results

Further investigation revealed that seven cases of anencephaly met the case definition, a rate of 26.7 cases per 10,000 live births. The rate of anencephaly alone was higher than the rate for the 14 Texas counties bordering Mexico (Texas Neural Tube Defect Project data, 1993-98). However, the anencephaly rate was not significantly higher than the rate for Webb County deliveries in 1993-1998, nor for 1997 when a cluster investigation was conducted.

The rate of all neural tube defects (NTDs) among deliveries from November 2000 through April 2001 to mothers living in Laredo was not significantly higher than any of the rates generated from the NTD Project data.

There was no concentration of cases in a particular month of conception. Furthermore, there was no evidence of a clustering of cases in a particular neighborhood, according to addresses at delivery provided in the medical records. Texas Department of Health and Laredo public health officials are continuing to investigate this cluster, including analyzing the addresses of case mothers near the time of conception.

Response

In addition to the surveillance of birth defects, TBDMD is working with the City of Laredo and other collaborators in actively pursuing strategies to decrease the rate of neural tube defects, including anencephaly and spina bifida. It is well established that an adequate intake of folic acid by women of childbearing age (400 mcg/day) during the time around conception could prevent as many as 50-75% of these defects. The easiest way to achieve the recommended intake is through a daily multivitamin containing folic acid. Aside from folic acid deficiency, other known risk factors include diabetes, obesity, and exposure to anticonvulsants in early

Anencephaly Rates in Laredo/Webb County	*Cases*	*Rate**	*95% Confidence Interval for Rate*
Observed Data			
Laredo, Nov. 2000 - Apr. 2001	7	26.7	10-7 - 55.0
Comparison Data			
Texas NTD Project data, 14 border counties, 1993-1998	160	6.2	5.3 - 7.3
Texas NTD Project data, Webb county, 1993-1998	31	10.8	7.3 - 15.3
Texas NTD Project data, Webb county, 1997**	10	19.4	9.3 - 35.8

* cases per 10,000 live births
** An NTD cluster investigation was conducted for deliveries in 1997 to Laredo residents.

WHAT'S INSIDE

pregnancy. Current TBDMD NTD surveillance, research, and prevention activities include:

- A statewide NTD recurrence prevention project is being conducted by the Texas Birth Defects Research Center and the University of Texas Health Science Center in San Antonio. Women who have previously had an NTD affected pregnancy are 30 to 50 times more likely to have another affected pregnancy (recurrence) than women with no such history. This project involves identifying and educating these women, and helping with a special daily regimen of high-dose folic acid.
- A statewide case-control study is being conducted to help find out more about the causes of NTDs. The women identified in Laredo with affected pregnancies will be enrolled in this study.
- Statewide folic acid education and prevention efforts are being conducted by the Texas Folic Acid Council.
- At the local level, the City of Laredo Health Department, with support from the Texas Department of Health, will initiate a mass media campaign to inform women about the importance of taking multivitamins with folic acid. Leaflets in English and Spanish and multivitamins will be made available to residents of Laredo/Webb County.

For more information, contact Amy Case, Texas Birth Defects Monitoring Division, 512-458-7232, e-mail: amy. case@tdh.state.tx.us.

Wider Implications

This report of a potential cluster in Laredo, along with subsequent actions taken by stakeholders and partners, demonstrates the potential benefits of a statewide birth defects monitoring program to the health of Texas communities. Timely identification of a potential problem and a swift, coordinated response from state and local government agencies, voluntary health organizations, and the media can have a tremendous impact on the actions families take to protect their health and their understanding of health risks. We hope to continuously improve upon this process of identification and collaborative response.

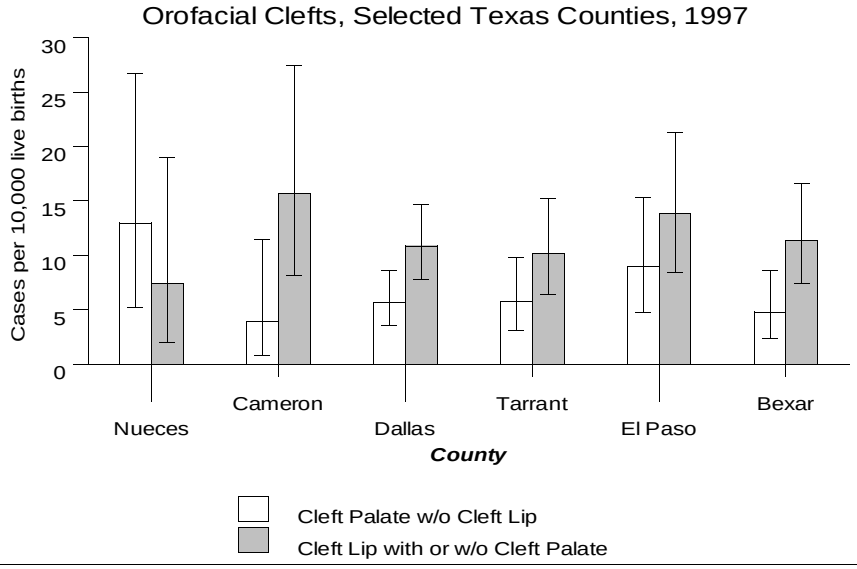
From the Registry

County Level Data

Researchers, local government workers, and health planners now have access to county-level birth defect rates on the Texas Birth Defects Monitoring Division web site, www.tdh.state.tx.us/tbdmd/county_data_entry.htm. The data tables provide prevalence rates per 10,000 live births for 49 major defects and the 95% confidence interval for each rate.

This report presents birth defects data by year and county of mother's residence at the time of delivery, for deliveries during 1997 to residents of the selected areas covered by the Texas Birth Defects Registry. For 1997 deliveries, the registry was active in Region 2 (Abilene and Wichita Falls), Region 3 (Dallas-Fort Worth), Region 8 (San Antonio), Region 9 (Midland-Odessa and San Angelo), Region 10 (El Paso and Big Bend), and Region 11 which includes the Lower Rio Grande Valley, Corpus Christi, and Laredo.

As the sample chart below shows, rates for specific defects can be compared between individual counties. It is important to note, however, that because of the small number of cases in a specific county and year, caution must be used in drawing conclusions. Although it appears that there are differences in rates between counties, they are not significantly different, shown by the wide and overlapping confidence intervals. County-level data and comparisons will become more meaningful when several years of data can be combined.



RESEARCH CENTER NEWS

Assessing Exposure to Disinfection By-products in Women of Reproductive Age

STUDY DESCRIPTION: Chlorine and other chemicals are routinely added to tap water to prevent the growth of bacteria. However, sometimes this practice forms new chemicals called disinfection by-products that may be harmful. Texas researchers tried to find ways to measure exposure to a type of disinfection by-products called trihalomethanes (THMs) by studying mothers who had recently given birth and lived in Corpus Christi, Texas, or Cobb County, Georgia. They sampled water in the women's homes and asked about how much water they drank, if they used bottled water, how often they washed clothes, and other questions about water usage. Two blood samples were collected from each mother before and immediately after showering. Levels of individual THM chemicals were measured in the blood and water.

In Cobb County water samples, THMs with bromine accounted for only 12% of the total THM concentration, but for 71% in Corpus Christi. Significant differences in blood THM levels were also observed between study locations and before and after showering. Using bromoform for example (a THM high in bromine), the average blood level measured before the morning shower was 0.3 parts per trillion (pptr) and 3.5 pptr for Cobb County participants and Corpus Christi participants, respectively. After the shower, the average blood levels were 0.5 pptr and 17 pptr for Cobb County and Corpus Christi participants, respectively. These results suggest that blood levels of THM chemicals vary greatly across populations, depending on both water quality characteristics and water use activities. Further analysis will indicate the best way to measure overall exposure to these chemicals.

RESEARCH IMPLICATIONS : Such variation has important implications for epidemiologic studies of the potential health effects of disinfection by-products. One paper from this study has been accepted for publication, another has been submitted, and two additional papers are anticipated.

For more information, contact Peter Langlois, Ph.D., at 512-458-7232, or email peter.langlois@tdh.state.tx.us

Texas and the National Birth Defects Prevention Study

(Continued from Volume 6-2, December 2000)

PLANS FOR REPORTING RESEARCH FINDINGS: The Texas Birth Defects Research Center is conducting the National Birth Defects Prevention Study (NBDPS) in collaboration with Centers in the states of Arkansas, California, Georgia, Iowa, Massachusetts, New Jersey, and New York. The NBDPS, the largest study ever conducted on the causes of birth defects, will provide information about the environmental and genetic factors that contribute to birth defects and will identify factors associated with either protecting or harming fetal development.

Investigators have proposed several studies using information from the NBDPS, including reports on the methodology. For example, Dr. Angela Scheuerle, medical consultant to the TBDRC, has proposed a manuscript entitled Ethical Issues Encountered in the Establishment of the Texas Birth Defects Research Center. The article will address ethical questions encountered in the NBDPS, such as: informed consent, cultural/ethnic sensitivity, participation of minors in research, confidentiality, right to refuse, right to withdraw, privacy right, compensation, electronically transmitted data, the impact of differing state laws on the participation of teenage mothers and fathers. In addition, Dr. Peter Langlois and others are publishing a paper providing a description the study design, and examining data collection methods, implementation issues, and the potential contribution to birth defects research.

TABLE 1. Birth Defects Eligible for the National Birth Defects Prevention Study

Organ System Affected	Eligible Birth Defects
Cardiovascular System	Conotruncal heart defects, septal heart defects, obstructive heart defects, atrioventricular septal defects, single ventricle, heterotaxy, Ebstein malformation anomalous pulmonary venous return
Central Nervous System	Neural tube defects, hydrocephaly, holoprosencephaly, Dandy-Walker malformation
Eye	Anophthalmia/microphthalmia, congenital cataracts, glaucoma
Ear	Anotia/microtia
Orofacial	Choanal atresia, cleft lip, cleft palate
Gastrointestinal System	Esophageal atresia and tracheoesophageal fistula, intestinal atresia, biliary atresia
Genitourinary System	Renal agenesis (bilateral), hypospadias (2nd or 3rd degree)
Musculoskeletal System	Diaphragmatic hernia, gastroschisis, omphalocele, limb deficiency, craniosynostosis, bladder exstrophy, cloacal exstrophy, sacral agenesis/caudal regression
Non-System Specific	Amniotic band sequence

During 2001, several members of the research team propose to conduct analyses on the clinical, interview and biological data stored in the CDC's central database of the National Birth Defects Prevention Study. To complete the analysis of

TABLE 2. Proposed Analyses of the National Birth Defects prevention Study

Organ System Affected	Primary Exposures	Proposed Research Question for Analysis
Central Nervous System	Maternal Obesity	The relationship between maternal body mass index (obese/overweight) prior to pregnancy and selected congenital defects
CNS & Genitourinary System	Diet Pills	Diuretics, Appetite Suppressants & CNS Anomalies
	Folic Acid Use & Ethnicity	Is Periconceptional Folic Acid Deficiency a Risk Factor for NTDs in Hispanics?
	Thyroid Hormone Use	Periconceptional Thyroid Hormone Use & Selected Anomalies
Musculoskeletal System	Ethnicity, socioeconomic status, intake of folic acid/multivitamins, hyperthermia	The epidemiology of congenital diaphragmatic hernia
None	Alcohol Use	Alcohol consumption by women prior to conception & throughout pregnancy

rare defects, we may require several more years of data collection to accumulate enough subjects to be able to generalize findings to the population at large. At this time, the Texas research team proposes to analyze data as described in Table 2 and report on several genetic and environmental factors that protect against or increase the risk for birth defects and exposures.

In 2002, the investigators of the Texas Birth Defects Research Center will apply for another Five-Year Cooperative Agreement with the Centers for Disease Control. We plan to continue to participate in the National Birth Defects Prevention Study, and conduct other studies and projects for the prevention of birth defects in Texas.

PREVENTION NOTES

Cereals with 100% Folic Acid: Next Wave in NTD Prevention?

Just a few years ago, only a handful of breakfast cereals was identified with providing 100% (400 mcg) of the daily recommended value of folic acid: Total products, Product 19, Multigrain Cheerios, and relative newcomer, Kellogg's Smart Start. What a difference a few years can make! Recent trips to the grocery store reveal that more than fifty cereal brands provide 100% of the recommended amount of folic acid for preventing neural tube defects (NTDs)! A list of the national brands of "highly fortified" breakfast cereals can be found at the CDC's Folic Acid Now web page, www.cdc.gov/ncbddd/folicacid/cereal.htm. Another list with some store brands specific to Texas grocery store chains is available from Amy Case at the Texas Birth Defects Monitoring Division, 512-458-7232, amy.case@ tdh.state.tx.us.

It is interesting that a reprint of MMWR article, "Knowledge and use of folic acid among women of reproductive age" (March 2001), appeared in *Food Ingredients Online*. In fact, this resource alone published seven articles in the past 12 months about the role of folate and prevention of birth defects. Cereal processors are gradually identifying 100% levels of folic acid as a potential "value added" feature that will attract consumers in the same way as health claims about dietary fiber that were so popular in the 1990's.

Much research must still be done to identify the impact that highly fortified cereals have on women's folate levels, and the ultimate impact on NTD rates.

LIVING WITH BIRTH DEFECTS

Plastic surgery and birth defects

Children with visible birth defects face long-term physical and psychological challenges. Since a normal appearance is fundamental to healthy human interaction and well being, children with unresolved abnormalities may suffer significantly from peer ridicule, which frequently lowers self-esteem. Often these children limit their participation in educational and social activities necessary to the development of stable behavior later in adult life. These problems can result in lost potential to society and an increased burden on the country's resources. (See also Monitor, Vol 6-1, The Cost of "Hidden" Birth Defects). For these reasons and because plastic surgeons perform tens of thousands of reconstructive surgeries due to birth defects each year (see table below), the Treatment of Children's Deformities Act (TCDA) has been put forward by the American Society of Plastic Surgeons (ASPS). TCDA (HR-792) would require insurance companies to cover reconstructive surgical procedures for children with congenital or developmental deformities, diseases or injuries. Coverage would be required for surgical procedures designed to improve the function of abnormal body structures, or to restore those body structures to a more normal appearance. "It is all too common for our patients to be denied access to medically necessary surgical procedures that correct congenital or developmental deformities," states ASPS President Walter Erhardt, Jr., MD.

Nearly 54 percent of ASPS members noted in an internal survey that they had pediatric patients who were totally denied coverage or experienced significant obstacles in obtaining coverage for reconstructive surgical procedures. Of those patients, 74 percent were denied coverage for an initial procedure, and 53 percent were denied for subsequent procedures.

On February 28, 2001, TCDA was introduced in the House of Representatives. The bill was referred to the House Education and Workforce Committee, Energy and Commerce Committee, and Ways and Means Committee for consideration, where it remains at this writing.

ASPS represents physicians certified by the American Board of Plastic Surgery (ABPS) or the Royal College of Physicians and Surgeons of Canada. To find an ABPS-certified plastic surgeon in your area or to learn more about reconstructive surgery, call the Plastic Surgery Information Service (PSIS) at (888) 4-PLASTIC (475-2784) or visit www.plasticsurgery.org. The PSIS also provides statistics as reported by members of the above organizations at www.plasticsurgery.org/mediactr/stats_ncs.htm.

The following is a summary of U.S. responses about reconstructive procedures to correct birth defects in 2000 (N=37,192 procedures):

Reconstructive Procedures by Defect, Age, and Gender

BY DEFECT:	
Cleft lip/palate:	14,813
Other craniofacial:	3,562
Congenital skin lesions:	14,344
Extremities:	1,948
Other:	2,525
AGE:	
2 or younger:	43%
3-6:	23%
7-12:	17%
13-18:	9%
19-34:	4%
35 or older:	4%
GENDER:	
Male:	50%
Female:	50%

Number of Patients, Nationwide

1992:	33,501
1996:	29,214
1997:*	34,587
1998:	22,457
1999:	30,702
2000:	36,968

*In 1997, PSIS reported reconstructive surgery statistics by region and selected states. The following table summarizes procedures for Texas:

Birth Defect Reconstructive Procedures, Texas Compared to U.S., 1977

Procedure	% of Procedures, Texas (5487 patients)	% of Procedures U.S. (34,587 patients)
Cleft lip/palate	43.0	45.1
Other craniofacial	18.5	10.1
Congenital skin lesions	34.3	40.3
Other	9.1	9.6

In this data, procedures performed in Texas represented 16% of all of the procedures reported for the U.S. There was no information given about migration to receive reconstructive surgery.

Source: The Plastic Surgery Information Service

FROM THE REGIONS

Staff Update

Lupe Gonzelez is part of our El Paso office. As Data Manager, she maintains the regional database of birth defects detected in that region. The El Paso office covers an enormous area (Regions 1, 9, and 10), stretching from Lubbock to Abilene to El Paso. She responded to questions about her background, how she got into birth defects surveillance, and what she feels is important about the work we do and challenges we face.

"I have always worked in the healthcare field: Orthotics and Prosthetics and Rehabilitation Services as a secretary and Durable Medical Equipment Coordinator. I have always had a special interest in children, especially in learning about children's disabilities and positive outcomes for these children and their families. When this position opened, I saw the opportunity to make a difference and learn still more about birth defects and their prevention."

"I am part of a team that collects data on children with birth defects, and submits this data to a central registry where it is analyzed to find causes of these birth defects."

"As a Division, it is important that we educate the public and healthcare professionals about birth defects, using prevention messages about those birth defects that we know we can definitely reduce the risk of (neural tube defects and fetal alcohol syndrome). Our future challenge is to promptly identify and report these birth defects and be able to act on them as soon as possible."

"I truly enjoy talking to people about preventing birth defects, especially the general public and teenagers of the risks there are with unplanned pregnancies."

SELECTED READING LIST

- **Anticonvulsant Drugs and Birth Defects:** This investigation reported an association between valproic acid and spina bifida; phenobarbital and methylphenobarbital and oral clefts; phenobarbital, methylphenobarbital, valproic acid, and carbamazepine and cardiac defects; valproic acid and hypospadias; and valproic acid and porencephaly, coarctation of the aorta, and limb reduction defects. [Epilepsia 2000;41:1436-1443] Researchers in Boston found the rate of birth defects to be higher among infants whose mothers took anticonvulsant drugs than among infants whose mothers did not have seizures and did not take anticonvulant drugs. The birth defect rates were similar among infants whose mother had seizures but did not take anticonvulsant drugs and infants whose mothers did not have seizures and did not take anticonvulsant drugs. [N Engl J Med 2001;344:1132-1138]
- **Corticosteroids and Birth Defects:** A prospective study in Toronto reported no increased risk of major birth defects with corticosteroids. An analysis of various studies found an increased risk of oral clefts with corticosteroid use. [Teratology 2000;62:385-392]
- **Birth Defects and Oxytetracycline:** This study from Hungary found increased risk of neural tube defects, cleft palate, and multiple congenital anomalies with maternal use of oxytetracycline during pregnancy. [Eur J Obstet Gynecol Reprod Biol 2000;88:27-33]
- **Misoprostol and Vascular Disruption Defects:** Researchers in Brazil reported an increased risk of vascular disruption defects such as limb reduction defects and Moebius syndrome with maternal use of misoprostol, a prostaglandin marketed for treatment of ulcers but also used as an abortifacient (also known as RU-486). [Am J Med Genet 2000;95:302-306]
- **Birth Defects and Dextromethorphan:** Researchers in Spain report no association between cough medicines containing dextromethorphan and such birth defects as neural tube defects, hydrocephaly, congenital heart defects, and oral clefts. [Teratology 2001;63:38-41]
- **Birth Defects and Cocaine:** An investigation in Florida found no increased risk of birth defects and no consistent pattern of birth defects with fetal cocaine exposure. [Pediatrics 2001;107:e74]
- **Down Syndrome, Smoking, and Coffee:** Researchers in California reported that risk of a pregnancy with recognized Down syndrome was reduced with high alcohol consumption and high coffee consumption. Smoking did not appear to affect this risk. [Am J Epidemiol 2000;152:1185-1191]
- **Birth Defects and Female Vietnam Veterans:** This investigation reported an increased risk of having an infant with a birth defect among women with a history of military service in Vietnam. [Am J Ind Med 2000;38:447-454]
- **Pesticides and Fetal Deaths Due to Birth Defects:** Using cases identified through vital statistics, researchers found increased risk of fetal deaths due to birth defects with proximity to pesticide applications. The greatest increase in risk was for exposure during the 3rd-8th weeks of pregnancy. [Epidemiology 2001;12:148-156]
- **Ultrasound Markers for Trisomy 21:** This study indicates that cardiac and non-cardiac markers on prenatal ultrasound can detect as many as 91% of fetuses with trisomy 21. [Ultrasoun Obstet Gynecol 2000;16:133-141]
- **Ultrasound Markers for Trisomy 18:** A California study reports that prenatal ultrasound markers in the second trimester can identify as many as 97% of fetuses with trisomy 18. [J Ultrasound Med 2000;19:565-576]
- **Microdeletion:** This article describes the heart and other defects associated with cases of 22q11.2 microdeletion. [Genetics in Medicine 2001;3:45-48]
- **Fetal Alcohol Syndrome Screening:** This investigation describes a project that tested the feasibility of population-based Fetal Alcohol Syndrome screening in primary schools in Washington State and issues and problems encountered. [Teratology 2001;63:3-10]
- **Categorization of Fetal Alcohol Syndrome:** This article discusses issues in the categorization of fetal alcohol syndrome and other alcohol-related congenital conditions. [Environ Health Perspect 2000;108 Suppl 3:421-428]
- **Fetal Alcohol Use and Maternal Alcohol Use:** Researchers in Washington State report a set of 3-4 questions regarding maternal alcohol use during pregnancy may be useful in identifying infants at risk of fetal alcohol spectrum disorders. [Alcohol Clin Exp Res 2001;25:283-287]
- **Neural Tube Defects and Lead:** This study in Great Britain failed to find any association between levels of lead in the water and neural tube defect rates. [Arch Dis Child 2000;82:50-53]
- **Neural Tube Defects with Chromosomal Anomalies:** This article describes the proportion of prenatally diagnosed cases of isolated neural tube defects that were also found to have chromosomal abnormalities. In addition, the article provides a table listing the proportion of isolated neural tube defects with chromosomal abnormalities reported by other studies. [J Reprod Med 2000;45:950-2]
- **Neural Tube Defects and Nitrate:** Investigators in California found no association between dietary nitrate and neural tube defects. However, there was increased risk of anencephaly, but not spina bifida, with nitrate in drinking water. [Am J Epidemiol 2001;153:325-331]
- **Neural Tube Defects and Reproductive Factors:** Researchers in England reported no association between subfertility and treatment for subfertility and neural tube defects. [Am J Epidemiol 2000;152:823-828]
- **Neural Tube Defects and Weight Gain:** This study in California found women carrying fetuses with neural tube defects gained less weight during pregnancy. [Int J Epidemiol 2001;30:60-65]
- **Congenital Rubella Syndrome:** This investigation evaluated the incidence of congenital rubella syndrome in a hospital in Texas with a large Hispanic population. [Pediatrics 2001;107:e40 (electronic article)]
- **Oral Clefts and Vitamins:** An investigation in Brazil found a reduction in occurrence of both cleft lip with/without cleft palate and cleft palate alone with maternal use of vitamin supplements in the first 4 months of pregnancy. [Cleft Palate Craniofac J 2001;38:76-83] Researchers in Atlanta reported a decrease in occurrence of both cleft lip with/without cleft palate and cleft palate alone with maternal use of multivitamins in the periconceptional period and the first month of pregnancy. [Teratology 2001;63:79-86]
- **Down Syndrome and Ethnicity:** This investigation reported that the impact of advanced maternal age on risk of live births with Down syndrome varied with maternal ethnicity. Differences in use of prenatal diagnostic procedures may account for the ethnic differences in impact of maternal age on Down syndrome births observed. [Am J Public Health 2000;90:1778-1781]
- **Oral Clefts and MTHFR Gene:** Researchers in Italy found increased risk of oral clefts among offspring of mothers with the C677T variant of the methylenetetrahydrofolate reductase (MTHFR) gene. [Am J Med Genet 2001;98:357- 360]
- **Birth Rate of Down Syndrome:** Investigators in Belgium reported a decline in the rate of Down syndrome at birth in 1984-1998. The decline appeared to be related to the introduction of the triple test and subsequent prenatal diagnosis and elective termination of fetuses with Down syndrome. [Eur J Hum Genet 2001;9:1-4]
- **Heart Defects, Race and Temporal Trends:** Researchers in Atlanta reported temporal trends and differences in rates between whites and blacks for a variety of heart defects. The rates of all heart defects and of particular types of heart defects increased over the study period. There were racial differences for several different types of heart defects. [Pediatrics 2001;107:e32 (electronic article)]
- **Transposition of the Great Arteries and Pesticides:** This investigation reported increased risk of transposition of the great arteries with maternal exposure to herbicides and rodenticides, but not insecticides. No association was found for other cardiac defect groups studied. [Am J Epidemiol 2001;153:529-536]
- **Hypoplastic Left Heart Syndrome and Prenatal Diagnosis:** This study found that survival rates where higher when hypoplastic left heart syndrome was diagnosed prenatally when compared with postnatal diagnosis. [Circulation 2001;103:1269-1273]
- **Birth Defects and Misoprostol:** A case-control investigation in South America reported increased risk of constriction rings, limb reduction defects, hydrocephaly, arthrogryposis, holoprosencephaly, and bladder exstrophy with use of misoprostol (RU-486). [BJOG 2000;107:519-523]
- **Congenital Heart Defects and Consanguinity:** An investigation in Saudi Arabia found an association between first-cousin consanguinity and ventricular septal defect, atrial septal defect, atrioventricular septal defect, pulmonary atresia, and pulmonary stenosis. [Am J Med Genet 2001;99:8-13]

For a more comprehensive listing of recent articles, contact Matt Forrester at 512-458-7232 or mathias.forrester@tdh.state.tx.us

ANNOUNCEMENTS

TEXAS FOLIC ACID COUNCIL WEB SITE: Information about TFAC's mission, current activities, and membership can be found at www.geocities.com/txfolic/home.htm.

TNTDP RESEARCH TO BE PUBLISHED: An article using data from the Texas Neural Tube Defects Project, Effects of hyperinsulinemia and obesity on risk of neural tube defects among Mexican Americans, authored by Kate Hendricks, Olga Nuno, Lucina Suarez, and Russell Larsen, is in press and will appear in Epidemiology this year, likely in November.

TEXAS BIRTH DEFECTS CONFERENCE 2002: March 7-8 at the Radisson, Downtown Ft. Worth. People wishing to be involved in the planning of this conference, wanting to submit ideas for speakers, or reserve exhibit space, should contact Amy Case at 512-458- 7232, amy.case@tdh.state.tx.us. Current planning committee members represent the following organizations: Ft. Worth Health Department, Tarrant County Health Department, Cook's Children's Hospital, North Texas Midwives Association, Texas Public Health Region 2/3, Texas Birth Defects Research Center, and the TDH Bureau of Children's Health, Genetics Services. Current information on the conference can be found at www.tdh.state.tx.us/tbdmd/conf/conf_page.html.

GRANT MONEY AVAILABLE: The March of Dimes - Texas Chapter is requesting grant proposals for programs that will be conducted in Texas in 2002. This money is available because of funds raised in local communities through WalkAmerica and other events. Chapter grants totaling $1,000,000 will be allocated to selected organizations that address the March of Dimes mission and priorities. Individual grants will range from $10,000 to $100,000. Those interested in applying for a March of Dimes Texas Chapter grant can visit the www.modtxgulfcoast.org, and click "Programs" to find application guidelines and the forms required, or call 1-866-756-2724.

CALENDAR

- August 22-25, 2001 AWOHNN Texas Section Conference, Dallas, Contact Rhonda Collins, mrcollin@airmail.net. October 12, 2001 Texas Perinatal Association Annual Conference, Holiday Inn Holidome, McAllen. Email: txpa@pop.crosswinds.net November 29-
- December 1, 2001, National Perinatal Association Annual Clinical Conference, "Improving Outcomes for Mothers and Infants: Preconceptual Care and Beyond", San Antonio. Contact: Email npa@nationalperinatal.org, Phone 888-971-3295.
- December 2-4, 2001 National Association of Health Data Organizations (NAHDO)16th Annual Meeting, Health Data Initiatives 2001, Washington, D.C., Contact: Becky Burggraaf, Phone: 801-587-9104, Email: bburggraaf@nahdo.org, web site: www.nahdo.org
- March 7-8, 2002, Texas Birth Defects Biennial Conference, Dallas/Ft. Worth. Contact Amy Case, phone: 512-458- 7232, e-mail: amy.case@tdh.state.tx.us

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Region 8

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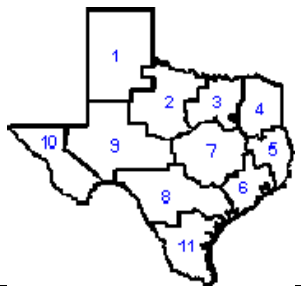
Region 11:

Texas Birth Defects Monitoring Division, 601 West Sesame Drive, Harlingen, Texas 78550, (956) 444-3204 FAX (956) 444-3296



The Texas Birth Defects Monitor is published twice a year by the Texas Department of Health.

To be added to the mailing list for this or other free publications from the Division, please contact us at (512) 458-7232 or e-mail bobbie.mankowski@ tdh.state.tx.us.

- More information can be found at: www.tdh.state.tx.us/tbdmd/index.htm

IMPORTANT ANNOUNCEMENT ABOUT THIS NEWS LETTER

In an effort to apply increasingly limited funds to the essential activity of birth defects surveillance, **this newsletter will no longer be distributed** in a paper or "hard copy". However, the information will continue to be published electronically in the following formats:

WEB SITE: www.tdh.state.tx.us/tbdmd/the.htm, twice a year

EMAIL: Twice a year, Adobe Portable Document Format (PDF)*

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